



IHB File No. S3/4405

CIRCULAR LETTER 67/2012
05 July 2012

CHART SPECIFICATIONS OF THE IHO (S-4)

1. Source/ZOC Diagrams
2. Historic wrecks
3. Berthside obstructions
4. Lighthouses
5. Depiction of imprecise shoal areas
6. Development dredging
7. Yellow, amber and orange lights
8. Symbol for diving prohibited

References: a) IHO Publication S-4 Part B: Chart Specifications of the IHO
b) IHB CL 07/2012 dated 26 January

Dear Hydrographer,

1 The Directing Committee would like to thank the following 33 Member States who replied to CL 07/2012 proposing the adoption of new and revised chart specifications: Argentina, Australia, Canada, Chile, Croatia, Denmark, Ecuador, Finland, France, Greece, Guatemala, Iceland, India, Italy, Japan, Korea (Rep. of), Latvia, Malaysia, Mexico, Morocco, Netherlands, Oman, Peru, Poland, Portugal, Romania, Singapore, Slovenia, South Africa, Spain, Sweden, UK and USA.

2 The majority of the proposals were supported without qualification. In some cases Member States provided comments and suggestions which, together with the comments of the Chairman of CSPCWG, are detailed in Annex A.

3. The new and revised specifications and symbols, with minor amendments noted in Annex A, will therefore be included in the next revision of S-4.

On behalf of the Directing Committee
Yours sincerely,

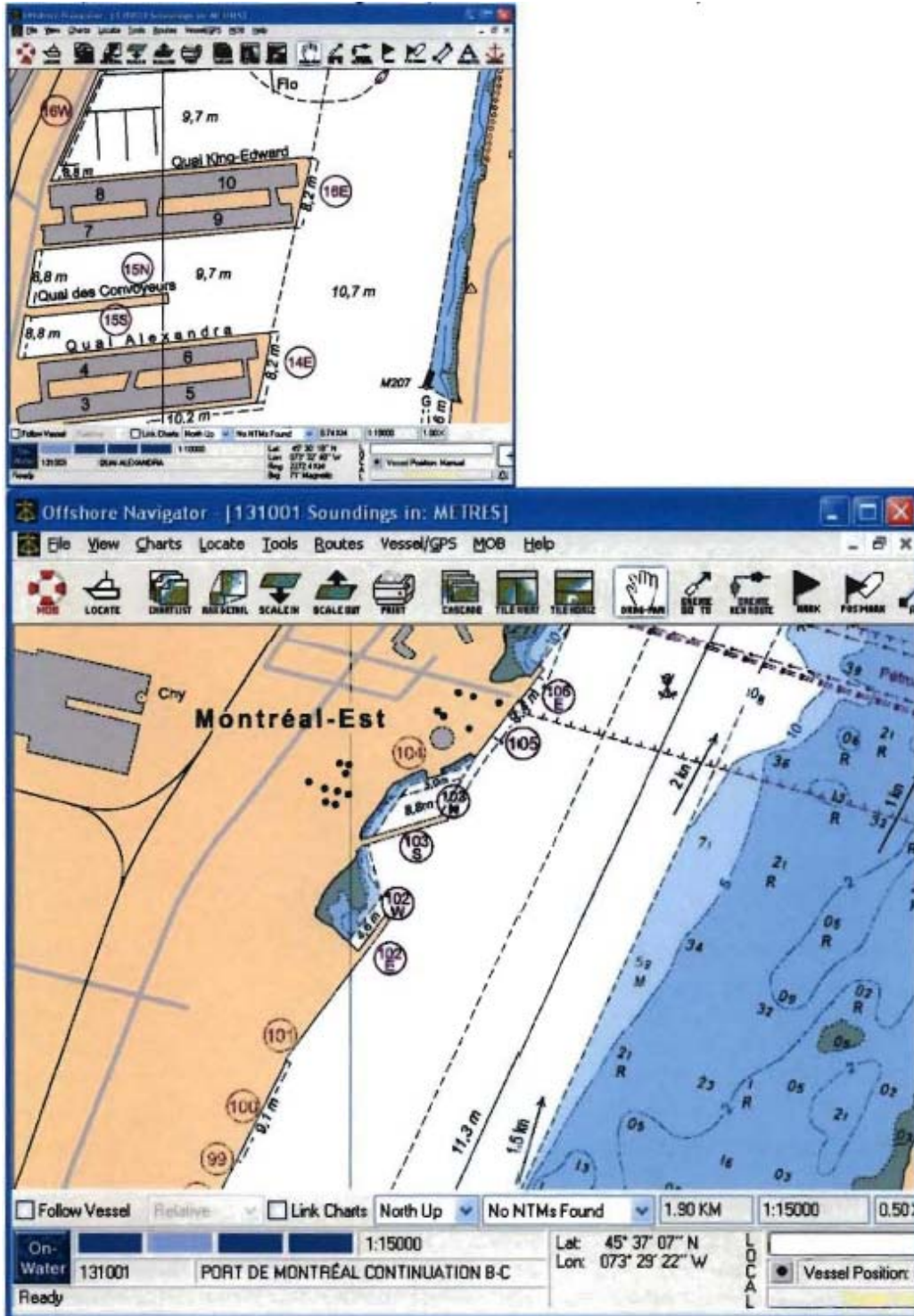


Robert WARD
Director

MEMBER STATES' COMMENTS

CANADA

- **B-410.1 : Depths alongside berths.** Other options could be the following CHS presentation of a lesser depth area:



Comment from Chairman CSPCWG: I would consider these examples to be a reasonable interpretation of the option detailed in the first bullet of B-410.1.

- **B-439.3/4: Symbol for diving prohibited.** We will require a vector image of this symbol once it is adopted to incorporate into our specifications and productions tools.

Comment from Chairman CSPCWG: Yes, all nations using this symbol will need to create a version of this symbol, which should be as similar as possible to that of the Swedish original, or obtain a vector image by agreement from another HO who has already developed one. This is always the case with new symbols.

CHILE (translated from Spanish by IHB)

- **B-297.4: Quality of the hydrographic source data.** We believe that this item must be referred only to quality; however, the paragraph in red refers first of all to new hydrographic surveying with a better or worst classification in the chart; in other words, the updating corresponds to the item B-294.4. Likewise, the item B-294.4 is mentioned, and the latter should be redirected to the “B-290.6 Updating”.

Comment from Chairman CSPCWG: This comment is not contrary to the change in policy, only with the arrangement of the new guidance within S-4. I agree that there are other ways in which this could have been arranged. However, our assessment was that the main issue was receipt of a new survey, the significant change usually being the date of the survey; it therefore seemed appropriate to give the detailed guidance in the section dealing with date (ie B-294). B-290 is really an introductory section. B-297 deals specifically with CATZOC data quality indicators, which could change as a result of a new survey; again, as such a change could require action taken to update the diagram, it seemed sensible to refer back to the fuller detail at B-294.4 rather than repeat the process here. Cross references are provided to B-294.4 from both B-290.6 and B-297.4 which should ensure the cartographer easily finds the necessary guidance.

- **Item B-450.2: Yellow, Amber and Orange Lights.** Of course, the distance factor has an impact on the confusion between the Orange, Amber and yellow colours. However, we esteem that, at a short distance, the colours are really differentiable. Because of the above, we think that the suggested paragraph is not necessary and, for the purpose of mapping the lights, the legend “Orange and amber lights may be charted as Y” appearing under the table 450.2 would be enough.

Comment from Chairman CSPCWG: Although it may in some circumstances be possible to distinguish these colours, the meaning of each is the same (i.e. special) and IHO should accept the advice of IALA as the expert organization. The advice is ‘should’ chart as ‘Y’, not ‘must’.

ECUADOR (translated from Spanish by IHB)

- **(Not referring to any particular spec.).** By virtue of the potential use of the acoustic backscattering from multibeam echo sounders for the portrayal of the sea bottom, we suggest to establish cartographic lineaments to define areas with the same type of sediments, specially those which could be used as anchorage.

Comment from Chairman CSPCWG: Backscatter data is a useful tool in the interpretation of surveys, however, it does not directly impact the draft specifications presented. I will take this matter up with Ecuador separately.

FRANCE (translated from French by IHB)

- **B-294.4: New survey.** France proposes replacing the proposed note “most recent data used or assessed for charting” by “charted depths are in agreement with the most recent data”, which France considers to be more explicit for the navigator.

Comment from Chairman CSPCWG: The proposed note is only an example; each nation is free to adopt whatever wording seems most suitable to the circumstances. However, if the actual dates of the most

recent data are given in the sources list, then the proposed note is a more accurate explanation of the situation. The alternative note proposed by France will only be correct at the time of the chart's publication.

- **B.422i: Historic wrecks.** France proposes adding “including the abbreviation *Wk*” at the end of the sentence “Any wreck detail and associated buoyage must be shown in black”. The fact of writing historic wreck could result in not wanting to repeat the INT abbreviation “*Wk*”.

Comment from Chairman CSPCWG: I agree this would be a helpful clarification, which will be added to the final version.

- **B-410.1: Depths alongside berths.** France suggests modifying the sentence corresponding to the second possible option for depicting depths alongside berths (“Choice of colour tints may allow this area to be shown in blue tint while the dredged area is white, which will draw attention to shoaler depths and berth-side obstructions.”), to read “Choice of colour tints may allow this area to be shown in a different tint (e.g. in a blue tint while the dredged area is white), which will draw attention to shoaler depths and berth-side obstructions”. In that the choice of colours may be different (solid blue and screened blue, screened blue and white).

Comment from Chairman CSPCWG: I accept this suggestion and will amend the final version accordingly.

- **B.424.7: Imprecise Shoal Areas.** Replace “greater” by “deeper” in the following sentence in the last paragraph in order to avoid any ambiguity: “If the depth can be reasonably estimated to lie between two extremes, particularly if the lower extreme can be confidently predicted to be greater than 30m, a legend, e.g.: *Shoal 30-100m rep (2011)*, or equivalent, may be inserted within or adjacent to the area”.

Comment from Chairman CSPCWG: I accept this suggestion and will amend the final version accordingly.

INDIA

- **B-410.1: Depths alongside berths.** Depiction of navigationally significant information from ports, should be at the HO's discretion subject to availability of space on the chart.

Comment from Chairman CSPCWG: I agree, but this has no impact on the proposed wording of the specification.

- **B-424.7: Imprecise Shoal Areas.** INT1, K1 meet the purpose. The misinterpretation of satellite image may lead to trouble. This option could be useful for areas that are not approachable. Bathymetric information must be from an authentic hydrographic survey source.

Comment from Chairman CSPCWG: K1 implies that the extent of any danger is known; this proposal is specifically for use when data is very limited, and recognises the inadvisability of delineating the area which may possibly exclude other dangers just outside the area which do not appear on a particular satellite image. It is intended for exceptional use in areas where we have enough information to justify some warning of potential hazard, but no 'authentic hydrographic survey source' is available.

ITALY

- **B-422i: Historic wrecks.** IIM suggests to allow the use of existing prohibition symbols (eg fishing N21, anchoring N20, etc.) on the edge and /or inside the area of the historical wrecks as an alternative to the explanatory note.

Comment from Chairman CSPCWG: The wording was not intended to replace the use of prohibition symbols. To clarify, we will add after ‘...largest scale charts, with the actual restrictions (eg anchoring prohibited, fishing prohibited) symbolized in the usual way within or adjacent to the area’. See also comment under UK below.

- **B-424.7: Imprecise Shoal Areas.** IIM believes that this new symbolism could not be easily understood by mariners, especially close to the coast or in shallow water. IIM also believes that the already existing symbol K1, with an explanatory note, is clear enough. IIM suggest to explain better the use of this new symbol, and in particular in what case it should be used in place of the existing K1.

Comment from Chairman CSPCWG: See response to India. I find it difficult to improve on the explanatory wording in the second paragraph. We will amend to read ‘...without limiting line, danger line or contour.’

JAPAN

- **B-410.1: Depths alongside berths** (8th line ‘~2m’). Japan has adopted the soundings within 1 meter from the position which is right under the outer edge of the fender attached on the quay.

Comment from Chairman CSPCWG: 2m was the advice we received when consulting on this. However, we will amend to read ‘A protrusion of 1-2m is unlikely to’

- **B-410.1: Depths alongside berths** (7th bullet ‘A diagram showing the profile of the side of the wharf may be included’). Japan suggests deleting this line. If there are multiple quays, it is difficult to spare enough space to chart the diagrams. And this option makes paper charts complicated.

Comment from Chairman CSPCWG: I agree with the comment about the likely problems with this option, so its use is likely to be rare (which is why it is listed last). Nevertheless, it seems that in some cases it may be useful but no HO is required to use it.

- **B-414.6: Areas being dredged.** Japan does not agree with B-414.6. Dredging plans should not be charted. We have many experiences that dredging plans would be changed as a result of unavoidable circumstances. We propose that the result of dredging work should be reflected on paper charts.

Comment from Chairman CSPCWG: The original proposal for charting such areas was not accepted by CSPCWG. However, this later submission makes very clear by use of magenta, the associated legend and retention of existing bathymetry that the depiction is not showing the actual situation. It provides HOs with a standardized option of how to show such plans (noting that inconsistent depictions have already appeared on some charts), without requiring a HO to use it.

PORTUGAL

- **B-294.4: New survey.** From the IHPT perspective, update the Source diagrams when a new survey is received should be the general orientation. The exceptions stated, special the second one, need clarification. Both should only be considered in less navigationally significant areas. IHPT proposes the following changes:

‘B-294.4 When a new survey is received and assessed by a hydrographic office, the Source diagram would not be modified if it is judged that:’

Replace by:

‘B-294.4 When a new survey from a less navigationally significant area is received and assessed by a hydrographic office, the Source diagram may not be modified if it is judged that:’

*Comment from Chairman CSPCWG: This proposal is only dealing with situations where a source (or ZOC) diagram may be updated by NM **between** new editions. Chart-updating NM should normally only be used for safety reasons and such would only exceptionally apply to updating the source diagram. If there has been no real change to depth, even in an area which is navigationally important, it would be comparatively rare that the information in the source diagram may be so misleading that a vessel would avoid an area and so use a more dangerous route. So, I believe this is for use in exceptional circumstances,*

rather than 'general orientation'. Of course, if the new survey is incorporated by new edition of the chart, then the source diagram should be updated (B-290.6).

SINGAPORE

- **INT1 N21.2: Diving prohibited.** It is under supplementary national symbols Ng – will this be removed?

Comment from Chairman CSPCWG: As the symbol for 'diving prohibited' is now approved as an international symbol with INT1 number N21.2, then any national versions (if significantly different from the approved INT symbol) should be located in column 4 of INT1 against N21.2 and any lettered entry can be removed (at next edition) – including Ng (German/English) and Nc (French) versions of INT1.

UNITED KINGDOM

- **B-422i: Historic wrecks.** We suggest an example or two would clarify the guidance.

Comment from Chairman CSPCWG: UK will produce examples to clarify the text, taking account of the comment by Italy as well.

- **B-424.7: Imprecise Shoal Areas.** We suggest that the green Marine Reserve area should be removed from Example 2, as it is not relevant to the guidance and could confuse.

Comment from Chairman CSPCWG: I will request AU to supply a revised example.

UNITED STATES

- **B-294.4: New survey.** The US recommends replacing the 'must' with 'may' or 'should'.

Comment from Chairman CSPCWG: In the comparatively rare circumstances that this relates to, it seems appropriate that an HO must consider a new edition. This does not require the HO to produce one; in fact, the rest of the paragraph continues to explain what may be done to the source diagram if the decision is **not** to produce a new edition.

- **B-422i: Historic wrecks.** The US recommends replacing the 'must' with 'may' or 'should'. The US may choose not to depict historic or sensitive wrecks.

Comment from Chairman CSPCWG: The 'must' relates to the standardized depiction, not to whether the historic wreck is to be charted at all. The decision on whether to chart at all is covered by 'if required' and allows for a national decision not to chart such wrecks.

- **B-410.1: Depths alongside berths.** The US recommends omitting this entire section. In US, the mariners and vessel owners should refer to the Coast Pilot or United States Army Corps of Engineers (ASACE) publications for alongside depths and try not to moor between shoal soundings, as shown on the chart.

Comment from Chairman CSPCWG: The US practice is covered by the 4th bullet (ie a note referring to an associated publication). The fact that US use that method does not preclude other HOs choosing a different method. The purpose of this guidance is to assist HOs consider different options and was drafted as a response to a request for such advice.

- **B-424.7: Imprecise Shoal Areas.** UK and US discovery methods and charting practices were presented as papers for consideration (CSPCWG7-08.11 and CSPCWG7-INF4) at the 7th Chart Standardization and Paper Chart Working Group Meeting (23-26 Nov 2010). The US recommends changing the text as follows (deletions shown in ~~red-strikeout~~ and additions shown in **bold blue**) in order to incorporate the methods described in these papers:

"It is important to depict known or suspected shoal areas on charts, so that the prudent mariner can avoid them, even where the actual depths cannot be shown because of the limitations of the source data. In areas where reliable hydrographic survey data is very

limited or non-existent, it is sometimes possible to identify the existence of shoal patches **and areas (potentially dangerous to sub-surface operations)** by satellite imagery, altimetry, or by use of other techniques (e.g. gravimetric data)."

Comment from Chairman CSPCWG: We had split the discovery methods, but understand from US comments that this is not appropriate. As drafted, the US proposal is ambiguous, possibly implying that such areas are only dangerous to sub-surface operations, whereas the depiction methods include areas which may be dangerous even to surface navigation. We will amend the second sentence to:

"In areas where reliable hydrographic survey data is very limited or non-existent, it may be possible to identify shoal areas by reference to other sources, eg satellite imagery, altimetry, gravimetric data. Such areas may be dangerous to surface navigation or only to sub-surface operations."

- **B-424.7** (US' proposed changes - Cont.)

"Where confidence in the data allows, **a dashed limit (N1.1)** or fine dashed lines may be used to bound areas of appropriate tint. For areas which may dry, small sections of symbols, eg rock, coral, may be inserted where known, eg:"

Comment from Chairman CSPCWG: Not accepted. The description here is applicable to the Australian example where confidence about the extent of the shoal area is good. In the case of rather vague areas deduced from, for example, gravimetric data, it is only possible to enclose a very approximate 'box', in which case N1.1 with legend is appropriate, as stated in the section below.

- **B-424.7** (US' proposed changes - Cont.)

~~"It is also possible to predict the existence of shoal areas (potentially dangerous only to sub-surface operations) by use of other techniques, eg gravimetric data. In such cases, an appropriate selection from B-424.1-5 should be made.~~ If the depth **of a shoal area** can be reasonably estimated to lie between two extremes, particularly if the lower extreme can be confidently predicted to be greater than 30m, a legend, eg: Shoal 30-100m rep (2011), or equivalent, may be inserted within or adjacent to the area. **In such cases, an appropriate selection from B-424.1-5 should be made.** ~~A dashed limit (N1.1) may be used to define the area, if necessary."~~

Comment from Chairman CSPCWG: As I have not accepted your proposed change in the second extract above, the reference to the use of N1.1 will need to be retained. We will amend the last sentence to 'If the area is extensive, it may be enclosed in a dashed limit (N1.1).'